

IN THE CLAIMSListing of Claims:

1. (canceled)
2. (canceled)
- 1 3. (currently amended) The method of claim ~~[[1]]~~ 10, wherein said recover BIOS
2 command is generated in response to a recover BIOS request received by said computer
3 system over a communication link.
- 1 4. (original) The method of claim 3, wherein said recover BIOS request is part of a
2 secure data packet received by said computer system via said communication link.
- 1 5. (currently amended) The method of claim 4, wherein said secure data packet has data
2 which must first be authenticated by said recovery code before said first BIOS image is
3 rewritten with said second BIOS image.
- 1 6. (currently amended) The method of claim ~~[[1]]~~ 10, wherein said nonvolatile memory
2 is an electronically erasable programmable read only memory (EEPROM).
- 1 7. (currently amended) The method of claim ~~[[1]]~~ 10, wherein said communication link
2 comprises a local area network (LAN) and a wide area network (WAN).
- 1 8. (currently amended) The method of claim ~~[[1]]~~ 10, wherein said nonvolatile storage
2 unit is an integrated drive electronics (IDE) disc drive.
- 1 9. (currently amended) The method of claim ~~[[1]]~~ 10, wherein said second BIOS image
2 was written onto said protected partition of said nonvolatile storage unit at the time of
3 manufacture.
- 1 10. (currently amended) ~~The method of claim 2,~~ A method for recovering a Basic Input
2 Output System (BIOS) image in a computer system, comprising the steps of:
3 executing recovery code stored in a nonvolatile memory in response to a recover
4 BIOS command;

5 rewriting a first BIOS image in said nonvolatile memory with a second BIOS
6 image stored in a protected portion of a nonvolatile storage unit in response to said
7 recovery code; and

8 updating said system using said rewritten second BIOS image in said nonvolatile
9 memory.

10 wherein said first BIOS image is rewritten with said second BIOS image if said
11 first BIOS image is determined to be corrupted and wherein said first BIOS image is
12 determined to be corrupted by comparing a signature of said first BIOS image to a
13 signature received in [[said]] a secure data packet.

1 11. (original) The method of claim 4, wherein said secure data packet is a Wake on LAN
2 packet.

1 12. (currently amended) The method of claim [[1]]10 wherein said second BIOS image
2 is written onto said protected partition of said nonvolatile storage unit under control of an
3 operating system executing an update BIOS image program on said system.

13. (canceled)

1 14. (currently amended) The apparatus of claim [[13]]23 further comprising a receiver
2 circuit to receive a recover BIOS request via a communication link.

15. (canceled)

1 16. (original) The apparatus of claim 14, wherein said recover BIOS command is
2 generated in response to said recover BIOS request received by said receiver circuit over
3 said communication link.

1 17. (original) The apparatus of claim 16, wherein said recover BIOS request is part of a
2 secure data packet received via said communication link.

1 18. (original) The apparatus of claim 17, wherein said secure data packet has data which
2 must be first authenticated by said recovery code before said first BIOS image is
3 rewritten with said second BIOS image.

1 19. (currently amended) The apparatus of claim ~~[[13]]~~ 23, wherein said nonvolatile
2 memory is an electronically erasable programmable read only memory (EEPROM).

1 20. (original) The apparatus of claim 14, wherein said communication link comprises a
2 local area network (LAN) and a wide area network (WAN).

1 21. (currently amended) The apparatus of claim ~~[[13]]~~ 23, wherein said nonvolatile
2 storage unit is an integrated drive electronics (IDE) disc drive.

1 22. (currently amended) The apparatus of claim ~~[[13]]~~ 23, wherein said second BIOS
2 image was written onto said protected partition of said nonvolatile storage unit at the
3 time of manufacture.

1 23. (currently amended) ~~The apparatus of claim 15,~~ An apparatus for recovering a BIOS
2 image for a computer system comprising:

3 a nonvolatile memory for storing recovery code and a first BIOS image;

4 a nonvolatile read/write storage system having a protectable storage partition, said
5 partition storing a second BIOS image;

6 an execution unit to execute said recovery code stored in said nonvolatile memory
7 in response to a recover BIOS command;

8 a write circuit for rewriting said first BIOS image in said nonvolatile memory
9 with said second BIOS image stored in said protected partition of said nonvolatile storage
10 unit in response to said recovery code; and

11 an update circuit for booting up said system using said second BIOS image
12 written in said nonvolatile memory,

13 wherein said first BIOS image is rewritten with said second BIOS image if said
14 first BIOS image is determined to be corrupted and wherein said first BIOS image is

15 determined to be corrupted by comparing a signature of said first BIOS image to a
16 signature received in [[said]] a secure data packet.

1 24. (original) The apparatus of claim 17, wherein said secure data packet is a Wake on
2 LAN packet.

25. (canceled)

1 26. (currently amended) The data processing system of claim [[25]] 35 further
2 comprising a receiver circuit to receive a recover BIOS request via a communication link.

27. (canceled)

1 28. (original) The data processing system of claim 26, wherein said recover BIOS
2 command is generated in response to said recover BIOS request received by said receiver
3 circuit over said communication link.

1 29. (currently amended) The data processing system of claim [[27]] 35, wherein said
2 recover BIOS request is part of a secure data packet received via said communication
3 link.

1 30. (original) The data processing system of claim 29, wherein said secure data packet
2 has data which must be first authenticated by said recovery code before said first BIOS
3 image is rewritten with said second BIOS image.

1 31. (currently amended) The data processing system of claim [[25]] 35, wherein said
2 nonvolatile memory is an electronically erasable programmable read only memory
3 (EEPROM).

1 32. (currently amended) The data processing system of claim [[25]] 35, wherein said
2 communication link comprises a local area network (LAN) and a wide area network
3 (WAN).

1 33. (currently amended) The data processing system of claim [[25]] 35, wherein said
2 nonvolatile storage unit is an integrated drive electronics (IDE) disc drive.

1 34. (currently amended) The data processing system of claim [[25]] 35, wherein said
2 second BIOS image is written onto said protected partition of said nonvolatile storage
3 unit at the time of manufacture.

1 35. (currently amended) ~~The data processing system of claim 27;~~ A data processing
2 system comprising:

3 a central processing unit (CPU);

4 a random access memory (RAM);

5 a communications adapter coupled to a communication link;

6 an I/O adapter coupled to non volatile read/write storage system, said nonvolatile
7 read/write storage system (hard drive) having a protectable storage partition, said
8 partition storing a second BIOS image;

9 a nonvolatile electronically erasable programmable read only memory
10 (EEPROM); and

11 a bus system coupling said CPU to said EEPROM, said communications adapter,
12 said I/O adapter, and said RAM, wherein said CPU comprises:

13 circuitry for executing said recovery code stored in a nonvolatile memory in
14 response to a recover BIOS command;

15 circuitry for rewriting said first BIOS image stored in said nonvolatile memory
16 with said second BIOS image stored in said protected partition of said nonvolatile storage
17 unit in response to said recovery code; and

18 circuitry for booting up said system using said second BIOS image written in said
19 nonvolatile memory,

20 wherein said first BIOS image is rewritten with said second BIOS image if said
21 first BIOS image is determined to be corrupted and wherein said first BIOS image is
22 determined to be corrupted by comparing a signature of said first BIOS image to a
23 signature received in [[said]] a secure data packet.

1 36. (original) The data processing system of claim 28, wherein said secure data packet is
2 a Wake on LAN packet.

1 37. (currently amended) The data processing system of claim ~~[[25]]~~ 35, wherein said
2 second BIOS image is written onto said protected partition of said nonvolatile storage
3 unit under control of an operating system executing an update BIOS image program on
4 said system.

38. (canceled)

39. (canceled)

1 40. (currently amended) The computer program product of claim ~~[[38]]~~ 47, wherein said
2 recover BIOS command is generated in response to a recover BIOS request received by
3 said computer system over a communication link.

1 41. (original) The computer program product of claim 40, wherein said recover BIOS
2 request is part of a secure data packet received by said computer system via said
3 communication link.

1 42. (original) The computer program product of claim 41, wherein said secure data
2 packet has data which must first be authenticated by said recovery code before said first
3 BIOS image is rewritten with said second BIOS image.

1 43. (currently amended) The computer program product of claim ~~[[38]]~~ 47, wherein said
2 nonvolatile memory is an electronically erasable programmable read only memory
3 (EEPROM).

1 44. (currently amended) The computer program product of claim ~~[[38]]~~ 47, wherein said
2 communication link comprises a local area network (LAN) and a wide area network
3 (WAN).

1 45. (currently amended) The computer program product of claim [[38]] 47, wherein said
2 nonvolatile storage unit is an integrated drive electronics (IDE) disc drive.

1 46. (currently amended) The computer program product of claim [[38]] 47, wherein said
2 second BIOS image was written onto said protected partition of said nonvolatile storage
3 unit at the time of manufacture.

1 47. (currently amended) ~~The computer program product of claim 39,~~ A computer
2 program product for recovering a BIOS image for a computer system, said computer
3 program product embodied in a machine readable medium, including programming for a
4 processor, said computer program comprising a program of instructions for performing
5 the program steps of:

6 executing recovery code stored in a nonvolatile memory in response to a recover
7 BIOS command;

8 rewriting a first BIOS image in said nonvolatile memory with a second BIOS
9 image stored in a protected portion of a nonvolatile storage unit in response to said
10 recovery code; and

11 updating said system using said rewritten second BIOS image in said nonvolatile
12 memory, wherein said first BIOS image is rewritten with said second BIOS image if said
13 first BIOS image is determined to be corrupted and wherein said first BIOS image is
14 determined to be corrupted by comparing a signature of said first BIOS image to a
15 signature received in [[said]] a secure data packet.

1 48. (original) The computer program product of claim 41, wherein said secure data
2 packet is a Wake on LAN packet.

1 49. (currently amended) The computer program product of claim [[38]] 47, wherein said
2 second BIOS image is written onto said protected partition of said nonvolatile storage
3 unit under control of an operating system executing an update BIOS image program on
4 said system.

1 50. (new) A method for recovering a Basic Input Output System (BIOS) image in a
2 computer system, comprising the steps of:

3 executing recovery code stored in a nonvolatile memory in response to a recover
4 BIOS command;

5 rewriting a first BIOS image in said nonvolatile memory with a second BIOS
6 image stored in a protected portion of a nonvolatile storage unit in response to said
7 recovery code; and

8 updating said system using said rewritten second BIOS image in said nonvolatile
9 memory,

10 wherein said recover BIOS command is generated in response to a recover BIOS
11 request received by said computer system over a communication link,
12 said recover BIOS request is part of a secure data packet received by said computer
13 system via said communication link, and said secure data packet has data which must
14 first be authenticated by said recovery code before said first BIOS image is rewritten with
15 said second BIOS image.

1 51. (new) The method of claim 50, wherein said first BIOS image is rewritten with said
2 second BIOS image if said first BIOS image is determined to be corrupted.

1 52. (new) The method of claim 50, wherein said nonvolatile memory is an electronically
2 erasable programmable read only memory (EEPROM).

1 53. (new) The method of claim 50, wherein said communication link comprises a local
2 area network (LAN) and a wide area network (WAN).

1 54. (new) The method of claim 50, wherein said nonvolatile storage unit is an integrated
2 drive electronics (IDE) disc drive.

1 55. (new) The method of claim 50, wherein said second BIOS image was written onto
2 said protected partition of said nonvolatile storage unit at the time of manufacture.

1 56. (new) An apparatus for recovering a BIOS image for a computer system comprising:
2 a nonvolatile memory for storing recovery code and a first BIOS image;
3 a nonvolatile read/write storage system having a protectable storage partition, said
4 partition storing a second BIOS image;
5 an execution unit to execute said recovery code stored in said nonvolatile memory
6 in response to a recover BIOS command;
7 a write circuit for rewriting said first BIOS image in said nonvolatile memory
8 with said second BIOS image stored in said protected partition of said nonvolatile storage
9 unit in response to said recovery code;
10 an update circuit for booting up said system using said second BIOS image
11 written in said nonvolatile memory; and
12 a receiver circuit to receive a recover BIOS request via a communication link,
13 wherein said first BIOS image is rewritten with said second BIOS image if said
14 first BIOS image is determined to be corrupted, said recover BIOS command is generated
15 in response to said recover BIOS request received by said receiver circuit over said
16 communication link, said recover BIOS request is part of a secure data packet received
17 via said communication link, and said secure data packet has data which must be first
18 authenticated by said recovery code before said first BIOS image is rewritten with said
19 second BIOS image.

1 57. (new) The apparatus of claim 56, wherein said nonvolatile memory is an
2 electronically erasable programmable read only memory (EEPROM).

1 58. (new) The apparatus of claim 56, wherein said communication link comprises a
2 local area network (LAN) and a wide area network (WAN).

1 59. (new) The apparatus of claim 56, wherein said nonvolatile storage unit is an
2 integrated drive electronics (IDE) disc drive.

1 60. (new) The apparatus of claim 56, wherein said second BIOS image was written onto
2 said protected partition of said nonvolatile storage unit at the time of manufacture.

1 61. (new) An apparatus for recovering a BIOS image for a computer system comprising:
2 a nonvolatile memory for storing recovery code and a first BIOS image;
3 a nonvolatile read/write storage system having a protectable storage partition, said
4 partition storing a second BIOS image;
5 an execution unit to execute said recovery code stored in said nonvolatile memory
6 in response to a recover BIOS command;
7 a write circuit for rewriting said first BIOS image in said nonvolatile memory
8 with said second BIOS image stored in said protected partition of said nonvolatile storage
9 unit in response to said recovery code; and
10 an update circuit for booting up said system using said second BIOS image
11 written in said nonvolatile memory,
12 wherein said first BIOS image is rewritten with said second BIOS image if said
13 first BIOS image is determined to be corrupted, said recover BIOS request is part of a
14 secure data packet received via said communication link, and said secure data packet has
15 data which must be first authenticated by said recovery code before said first BIOS image
16 is rewritten with said second BIOS image.

1 62. (new) The data processing system of claim 61 further comprising a receiver circuit
2 to receive a recover BIOS request via a communication link.

1 63. (new) The data processing system of claim 61, wherein said recover BIOS command
2 is generated in response to said recover BIOS request received by said receiver circuit
3 over said communication link.

1 64. (new) The data processing system of claim 61, wherein said nonvolatile memory is
2 an electronically erasable programmable read only memory (EEPROM).

1 65. (new) The data processing system of claim 61, wherein said communication link
2 comprises a local area network (LAN) and a wide area network (WAN).

1 66. (new) The data processing system of claim 61, wherein said nonvolatile storage unit
2 is an integrated drive electronics (IDE) disc drive.

1 67. (new) The data processing system of claim 61, wherein said second BIOS image is
2 written onto said protected partition of said nonvolatile storage unit at the time of
3 manufacture.

1 68. (new) A computer program product for recovering a BIOS image for a computer
2 system, said computer program product embodied in a machine readable medium,
3 including programming for a processor, said computer program comprising a program of
4 instructions for performing the program steps of:

5 executing recovery code stored in a nonvolatile memory in response to a recover
6 BIOS command;

7 rewriting a first BIOS image in said nonvolatile memory with a second BIOS
8 image stored in a protected portion of a nonvolatile storage unit in response to said
9 recovery code; and

10 updating said system using said rewritten second BIOS image in said nonvolatile
11 memory, wherein said recover BIOS command is generated in response to a recover
12 BIOS request received by said computer system over a communication link, said recover
13 BIOS request is part of a secure data packet received by said computer system via said
14 communication link, and said secure data packet has data which must first be
15 authenticated by said recovery code before said first BIOS image is rewritten with said
16 second BIOS image.

1 69. (new) The computer program product of claim 68, wherein said first BIOS image is
2 rewritten with said second BIOS image if said first BIOS image is determined to be
3 corrupted.

1 70. (new) The computer program product of claim 68, wherein said nonvolatile memory
2 is an electronically erasable programmable read only memory (EEPROM).

1 71. (new) The computer program product of claim 68, wherein said communication link
2 comprises a local area network (LAN) and a wide area network (WAN).

1 72. (new) The computer program product of claim 68, wherein said nonvolatile storage
2 unit is an integrated drive electronics (IDE) disc drive.

1 73. (new) The computer program product of claim 68, wherein said second BIOS image
2 was written onto said protected partition of said nonvolatile storage unit at the time of
3 manufacture.

1 74. (new) The computer program product of claim 68, wherein said secure data packet
2 is a Wake on LAN packet.

1 75. (new) The computer program product of claim 68, wherein said second BIOS image
2 is written onto said protected partition of said nonvolatile storage unit under control of an
3 operating system executing an update BIOS image program on said system